



Australian Bureau of Statistics

6291.0.55.001 - Labour Force, Australia, Detailed - Electronic Delivery, May 2008

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Summary

Main Features

Data from the monthly Labour Force Survey are released in two stages. The **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001) and **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003) are part of the second release, and include detailed data not contained in the **Labour Force, Australia** (cat. no. 6202.0) product set, which is released one week earlier.

The **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001) is released monthly. **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003) includes data only collected in February, May, August and November (including industry and occupation).

Since these products are based on the same data as the **Labour Force, Australia** (cat. no. 6202.0) publication, the **6202.0 Labour Force, Australia Main Features** are relevant to both releases.

IMPLEMENTATION OF NEW SAMPLE DESIGN

Following each Census of Population and Housing, the ABS selects a new sample for the Labour Force Survey. This is done to ensure that the sample continues to accurately represent the distribution of the Australian population. A new sample has recently been selected based on the 2006 Census. Detailed information about the new sample is provided in **Information Paper: Labour Force Survey Sample Design** (cat. no. 6269.0), which was released on 28 November 2007.

In order to reduce the potential impact of the change in sample on labour force statistics, the new sample is being introduced progressively, taking advantage of the existing rotation scheme. Using this scheme, the private dwelling sample in larger urban centres and less remote areas, representing approximately four-fifths of the total sample, will be phased in over the period November 2007 to June 2008. Within these areas, one-eighth of the new sample will be introduced each month under existing sample rotation arrangements. The rest of the sample (in remote, less populated areas and for non-private dwellings) was introduced in two stages. The first stage, which occurred in March, was the introduction of this sample in New South Wales, Western Australia, Northern Territory and Australian Capital Territory. The second stage, which occurred in April, was the introduction of this sample in Victoria, Queensland, South Australia and Tasmania.

Analysis of the incoming and outgoing components of the sample indicates that the phasing in of the new sample has had minimal impact on the State and Territory estimates. Changes

for remote, less populated areas and non private dwellings in March and April may have resulted in increased volatility in the affected states and territories.

Technical Note

Background

Last month's issue of this publication included an article advising that from July 2008 the Labour Force Survey (LFS) sample will be reduced by 24% compared with the June 2008 sample. The article highlighted:

- the reasons for the reduction in sample size;
- the expected sample size in July 2008;
- the impact of the reduced sample size on the quality of the estimates; and
- the impact of the reduced sample size on LFS products and associated surveys.

This article provides information on some of the methodological changes resulting from the reduced sample size.

Population Benchmarks

LFS estimates are calculated in such a way as to add up to independent estimates of the civilian population aged 15 years and over (population benchmarks). Currently two sets of population benchmarks are used in producing LFS estimates. The first set of benchmarks are population estimates separated by Capital City, Balance of State, Sex and Age. There are 20 age groups in all; single year groups for those aged 15 to 24, 5 year groups for those aged 25 to 69 and a final group for those aged 70 and over. The second set of benchmarks are population estimates split by Labour Force Dissemination Region and Sex.

The weighting methodology used in the LFS requires a respondent in each of the above benchmarks. An investigation was undertaken to determine the likelihood of no respondents in any of the above benchmarks, given the reduced sample size which will be in place from July 2008.

This investigation found that given the reduced sample size, there would be a high chance of this occurring in the single year age groups (i.e. 15 to 24 years) for balance of South Australia, balance of Western Australia and the city of Hobart. For this reason the ABS has decided to combine some age groups in these areas to significantly lower the likelihood of having no respondents for these groups.

The collapsing of age groups will mean:

- for the balance of South Australia and Western Australia, the single year age groups used for benchmarking will be collapsed to those aged 15, 16, 17, 18-19, 20-21 and 22-24;
- for Hobart the single year age groups used for benchmarking will be collapsed to those aged 15, 16, 17, 18, 19, 20, 21, 22-24.

The decision was made to group the ages together in this way as it keeps the 15 to 19 and 20 to 24 year old age groups separate. This was done because several LFS products are released with that disaggregation.

There will be no other changes to the benchmarks used for other States or Territories or to the age groups used for those aged 25 and above.

The ABS currently releases some products with single year of age data for those aged 15 to 24 years old. The ABS will continue to release all products which contain single year of age data. The quality of these data will be slightly reduced due to the single year of age data no longer being benchmarked in all areas.

About this Release

As part of this release, the Australian Bureau of Statistics (ABS) has introduced an improved method of estimation for the Labour Force Survey (LFS). The new method, known as composite estimation, is more efficient than the current estimation method. That is, the composite estimator achieves a given level of standard error at lower cost than the current estimator.

This new estimation method has been introduced with the release of May 2007 labour force statistics in Labour Force, Australia (cat. no. 6202.0). The ABS has also released Labour Force Australia, Spreadsheets (cat. no. 6202.0.55.001) with estimates back to April 2001 revised based on the new estimation method. Also as part of this release, to harmonise our labour force statistics, LFS has re-released Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001), with data up to April 2007, and Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003) with data up to February 2007. The estimates back to April 2001 in these products has been revised based on the new estimation method. These products will then be released again on 14 June 2007 with May 2007 data.

Further information about the change in estimation method for LFS and any likely impacts, is provided in Information Paper: Forthcoming Changes to Labour Force Statistics (cat. no. 6292.0) which was released on 21 May 2007.

A range of Excel spreadsheets and SuperTABLE datacubes. The monthly spreadsheets contain broad level data covering all the major items of the Labour Force Survey in time series format, including seasonally adjusted and trend estimates. The monthly datacubes contain more detailed and cross classified original data than the spreadsheets.

Explanatory Notes

Explanatory Notes

Data from the monthly Labour Force Survey are released in two stages. The **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001) and **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003) are part of the second release, and include detailed data not contained in the **Labour Force, Australia** (cat. no. 6202.0) product set, which is released one week earlier.

The **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001) is released monthly. **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003) includes data only collected in February, May, August and November (including industry and occupation).

Since these products are based on the same data as the **Labour Force, Australia** (cat. no. 6202.0) publication, the 6202.0 Labour Force, Australia Explanatory Notes are relevant to both releases.

Quality Declaration - Summary

INSTITUTIONAL ENVIRONMENT

Labour Force statistics are compiled from the Labour Force Survey which is conducted each month throughout Australia as part of the Australian Bureau of Statistics (ABS) household survey program. For information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

The Labour Force Survey provides monthly information about the labour market activity of Australia's resident civilian population aged 15 years and over. The Labour Force Survey is designed to primarily provide estimates of employment and unemployment for the whole of Australia and, secondarily, for each state and territory.

TIMELINESS

The Labour Force Survey enumeration begins on the Monday between the 6th and 12th of the month, except for the Christmas and New Year holiday period. In December enumerations starts between the 4th and 10th (4 weeks after November enumeration begins). In January enumeration starts between the 8th and 14th (5 weeks after December enumeration begins).

Key estimates from the Labour Force Survey are published in two stages. *Labour Force, Australia* (cat. no. 6202.0) and *Labour Force, Australia, Spreadsheets* (cat. no. 6202.0.55.001) are the first release. These data are released 31 days after the commencement of enumeration for the month, with the exception of estimates for December which are published 38 days after the commencement of enumeration.

Detailed data which were not part of the first release from the Labour Force Survey are published in *Labour Force, Australia, Detailed - Electronic Delivery* (cat. no. 6291.0.55.001) and *Labour Force, Australia, Detailed, Quarterly* (cat. no. 6291.0.55.003), which are released one week after the initial release.

ACCURACY

The Labour Force Survey is based on a sample of private dwellings (approximately 30,000

houses, flats etc) and non-private dwellings, such as hotels and motels. The sample covers about 0.45% of the Australian Population. The Labour Force Survey is designed primarily to provide estimates of key labour force statistics for the whole of Australia and, secondarily, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all persons selected in the survey. The Labour Force Survey receives a high level of cooperation, with an average response rate for the last year being 97%.

Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

Standard errors of key estimates and movements since the previous month are available in *Labour Force, Australia* (cat. no. 6202.0). The standard error of other estimates and movements may be calculated by using the spreadsheet contained in *Labour Force Survey Standard Errors, Data Cube* (cat. no. 6298.0).

COHERENCE

The ABS has been conducting the Labour Force Survey each month since February 1978. While seeking to provide a high degree of consistency and comparability over time by minimising changes to the survey, sound survey practice requires careful and continuing maintenance and development to maintain the integrity of the data and the efficiency of the collection.

The changes which have been made to the Labour Force Survey have included changes in sampling methods, estimation methods, concepts, data item definitions, classifications, and time series analysis techniques. In introducing these changes the ABS has generally revised previous estimates to ensure consistency and coherence with current estimates. For a full list of changes made to the Labour Force Survey see *Labour Statistics: Concepts, Sources and Methods* (cat. no. 6102.0.55.001) Table 20.2.

INTERPRETABILITY

The key estimates from the Labour Force Survey are available as original, seasonally adjusted and trend series. Seasonal adjustment is a means of removing the effects of normal seasonal variation from the series so other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular influences which may be present and therefore month-to-month movements may not be reliable indicators of underlying behaviour. To assist in interpreting the underlying behaviour, the ABS produces the trend series by smoothing the seasonally adjusted series to reduce the impact of the irregular component. For further information, see *A Guide to Interpreting Time*

Series - Monitoring Trends (cat. no. 1349.0).

Further information on the terminology and other technical aspects associated with statistics from the Labour Force Survey can be found in the publication *Labour Force, Australia* (cat. no. 6202.0), which contains detailed Explanatory Notes, Standard Error information and a Glossary.

ACCESSIBILITY

Please see the Related Information tab for the list of products that are available from this collection.

Data Cubes (I-Note) - Data Cubes

Due to changes in sample redesign, it has been necessary to collapse some regional groups in New South Wales. This has resulted in changes to weights applied at the New South Wales state and regional levels. Estimates for New South Wales state and regional levels have been revised to reflect this change, affecting estimates from November 2007 to April 2008.

Time Series Spreadsheet (I-Note) - Time Series Spreadsheet

Due to changes in sample redesign, it has been necessary to collapse some regional groups in New South Wales. This has resulted in changes to weights applied at the New South Wales state and regional levels. Estimates for New South Wales state and regional levels have been revised to reflect this change, affecting estimates from November 2007 to April 2008.

Standard Errors

Standard Errors

Estimates from the Labour Force Survey (LFS) are based on information collected from people in a sample of dwellings, rather than the entire population. Hence the estimates produced may differ from those that would have been produced if the entire population had been included in the survey. The most common measure of the likely difference (or 'sampling error') is the **standard error** (SE). New models for calculating standard errors for these estimates were introduced in November 2007, due to the progressive introduction of the new sample for LFS, currently taking place.

The ABS considers that estimates with a relative standard error of 25% or more may be subject to sampling variability too high for most practical purposes.

To determine if an item has a relative standard error of 25% or more, in SuperTABLE, right click in the centre of the table, select annotate cells - standard annotations, and select 'Annotate RSE cut-off values'.

To indicate those cells in spreadsheets with a relative standard error of 25% or more, annotations have been applied prior to dissemination.

In addition, the tables below have been supplied to show estimates at which the relative standard error is 25%. Estimates of the size indicated in the tables, or smaller, are considered to be subject to sampling variability too high for most practical purposes.

Additional information on how standard errors for LFS estimates are produced is available in Labour Force Survey Standard Errors, Data Cube (cat. no. 6298.0.55.001).

State	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Employed									
Feb 78 to Sep 82	4.5	4.5	3.5	2.5	2.5	1.5	2.0	2.0	4.5
Oct 82 to Aug 87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5
Sep 87 to Aug 92	4.5	4.5	3.0	2.0	2.5	1.3	1.8	1.5	4.0
Sep 92 to Aug 97	5.3	4.6	3.5	2.4	2.9	1.3	1.3	1.0	4.0
Sep 97 to Mar 01	5.9	4.5	4.1	2.4	2.8	1.1	1.0	1.1	4.4
Apr 01 to Oct 07	4.9	4.1	3.7	2.0	2.3	1.1	1.4	1.1	4.9
Nov 07	5.0	4.1	3.8	2.0	2.4	1.2	1.3	1.1	5.0
Dec 07	5.0	4.2	3.9	2.0	2.4	1.2	1.2	1.1	5.0
Jan 08	5.1	4.3	3.9	2.1	2.5	1.2	1.2	1.2	5.1
Feb 08	5.2	4.4	4.0	2.1	2.6	1.2	1.1	1.2	5.1
Mar 08	5.4	4.4	4.1	2.1	2.9	1.2	1.0	1.2	5.2
Apr 08	5.5	4.6	4.5	2.2	3.0	1.2	0.9	1.3	5.3
May 08	5.5	4.7	4.5	2.3	3.1	1.3	0.9	1.3	5.4
Jun 08 Onwards	5.6	4.8	4.6	2.3	3.2	1.3	0.9	1.3	5.4
Unemployed									
Feb 78 to Sep 82	4.5	4.5	3.5	2.5	2.5	1.5	2.0	2.0	4.5
Oct 82 to Aug 87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5
Sep 87 to Aug 92	4.5	4.5	3.0	2.0	2.5	1.3	1.8	1.5	4.0
Sep 92 to Aug 97	5.3	4.6	3.5	2.4	2.9	1.3	1.3	1.0	4.0
Sep 97 to Mar 01	5.9	4.5	4.1	2.4	2.8	1.1	1.0	1.1	4.4
Apr 01 to Oct 07	5.7	4.9	4.2	2.7	3.0	1.7	2.4	1.5	4.7
Nov 07	5.8	5.0	4.3	2.8	3.2	1.7	2.2	1.6	4.8
Dec 07	5.9	5.1	4.4	2.8	3.3	1.7	1.9	1.6	4.8
Jan 08	6.0	5.3	4.5	2.9	3.4	1.7	1.8	1.7	4.9
Feb 08	6.2	5.4	4.7	3.0	3.6	1.8	1.6	1.7	4.9
Mar 08	6.4	5.5	4.8	3.0	3.9	1.8	1.5	1.8	5.0
Apr 08	6.5	5.8	5.2	3.2	4.1	1.8	1.4	1.9	5.1
May 08	6.6	5.9	5.3	3.3	4.3	1.9	1.3	2.0	5.2
Jun 08 Onwards	6.8	6.1	5.5	3.3	4.5	1.9	1.3	2.1	5.2
NILF									
Feb 78 to Sep 82	4.5	4.5	3.5	2.5	2.5	1.5	2.0	2.0	4.5
Oct 82 to Aug 87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5
Sep 87 to Aug 92	4.5	4.5	3.0	2.0	2.5	1.3	1.8	1.5	4.0
Sep 92 to Aug 97	5.3	4.6	3.5	2.4	2.9	1.3	1.3	1.0	4.0
Sep 97 to Mar 01	5.9	4.5	4.1	2.4	2.8	1.1	1.0	1.1	4.4
Apr 01 to Oct 07	5.9	4.8	4.4	2.5	2.9	1.3	1.8	1.3	5.3
Nov 07	6.0	4.9	4.5	2.5	3.0	1.4	1.7	1.4	5.3
Dec 07	6.1	5.0	4.5	2.6	3.0	1.4	1.6	1.4	5.4
Jan 08	6.2	5.1	4.6	2.6	3.1	1.4	1.5	1.4	5.4
Feb 08	6.2	5.2	4.7	2.7	3.2	1.4	1.4	1.5	5.5
Mar 08	6.6	5.4	4.8	2.7	3.6	1.4	1.2	1.5	5.6
Apr 08	6.7	5.6	5.3	2.9	3.7	1.5	1.1	1.6	5.7
May 08	6.8	5.7	5.5	2.9	3.9	1.5	1.1	1.6	5.8
Jun 08 Onwards	6.9	5.9	5.6	3.0	4.0	1.5	1.0	1.7	5.8

Capital City/Balance of State	Sep 87 to Aug 92	Sep 92 to Aug 97	Sep 97 to Mar 01	Apr 01 to Oct 07	From Nov 07
Sydney Major Statistical Region	4.5	5.3	5.7	5.0	5.8
Balance of New South Wales Major Statistical Region	4.5	5.3	5.7	5.0	5.7
Melbourne Major Statistical Region	4.5	4.6	4.6	4.2	5.0
Balance of Victoria Major Statistical Region	4.5	4.6	4.3	4.1	4.9
Brisbane Major Statistical Region	3.0	3.5	3.7	3.5	4.3
Balance of Queensland Major Statistical Region	3.0	3.6	4.3	3.7	4.7
Adelaide Major Statistical Region	2.0	2.4	2.4	2.1	2.5
Balance of South Australia Major Statistical Region	2.0	2.5	2.2	2.0	2.4
Perth Major Statistical Region	2.5	2.9	2.6	2.5	3.4
Balance of Western Australia Major Statistical Region	2.5	2.9	2.8	2.3	3.2

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